

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (Canceled)

18. (Currently Amended) An exhaust processor comprising
a housing defining an interior region and having an inlet and an outlet,
a flow conduit located in the interior region of the housing to conduct engine
combustion product from the inlet to the outlet,
a static tuning volume located in the interior region of the housing and separate from
the flow conduit,

a longitudinally extending tuning tube positioned to lie in the interior region of the
housing to extend into the static tuning volume, the tuning tube being formed to include an
inlet opening positioned to receive therein engine combustion product extant in the flow
conduit and an outlet opening arranged to lie in the static tuning volume and to place the
static tuning volume in acoustic communication with acoustic waves associated with engine
combustion product in the tuning tube, and

a ~~resonator controller including~~ a regulator mounted for movement in the static tuning
volume longitudinally alongside the tuning tube to vary the size of the outlet opening formed
in the tuning tube.

19. (Currently Amended) The exhaust processor of claim 18, wherein the housing
includes first and second end walls, at least one baffle, and a side wall arranged to extend
from the first end wall to the second end wall to define the interior region therebetween and
the flow conduit includes an inlet section bounded by the first end wall, the at least one
baffle, and a portion of the side wall located between the first end wall and the at least one

baffle and an outlet section defined by a tube extending through the static tuning volume and having an inlet extending through an aperture formed in the at least one baffle to receive engine combustion product from the inlet section and an outlet extending through an aperture formed in the second end wall.

20. (Canceled)

21. (New) The exhaust processor of claim 18, wherein the flow conduit includes an inlet section located outside the static tuning volume and an outlet section located in the static tuning volume.

22. (New) The exhaust processor of claim 21, wherein the inlet section is configured as a chamber located to receive engine combustion product from the inlet, and the outlet section is configured as a tube located to conduct engine combustion product from the chamber through the static tuning volume to the outlet.

23. (New) The exhaust processor of claim 18, wherein the housing includes an end wall and a baffle located in the interior region, the flow conduit includes a chamber defined between the end wall and the baffle, and the tuning tube is mounted to the baffle for communication with the chamber.

24. (New) The exhaust processor of claim 18, wherein the flow conduit includes a tube located in the static tuning volume.

25. (New) The exhaust processor of claim 24, wherein the housing includes a baffle located in the interior region, and the tuning tube and the tube are mounted to the baffle.

26. (New) The exhaust processor of claim 24, wherein the housing includes an end wall, and the tuning tube and the tube are mounted to the end wall.
27. (New) The exhaust processor of claim 26, wherein the regulator includes a sleeve surrounding the tuning tube, and further comprising a sleeve mover coupled to the sleeve and the end wall and configured to move the sleeve longitudinally alongside the tuning tube.
28. (New) The exhaust processor of claim 24, wherein the housing includes a baffle and an end wall, the baffle is located in the interior region, the static tuning volume is defined between the baffle and the end wall, and the tuning tube and the tube extend from the baffle through the static tuning volume to the end wall.
29. (New) An exhaust processor comprising
a housing defining an interior region and having a housing inlet and a housing outlet,
a static tuning volume located in the interior region,
a chamber located in the interior region to receive engine combustion product from the housing inlet,
a first tube extending from the chamber through the static tuning volume to the housing outlet to conduct engine combustion product from the chamber through the static tuning volume to the housing outlet,
a longitudinally extending tuning tube located in the static tuning volume, the tuning tube including a tube inlet located to receive engine combustion product from the chamber and a tube outlet located in the static tuning volume for acoustic communication between the tuning tube and the static tuning volume through the tube outlet, and

a regulator mounted for movement in the static tuning volume longitudinally alongside the tuning tube to vary the size of the tube outlet formed in the tuning tube.

30. (New) The exhaust processor of claim 29, wherein the housing includes first and second end walls and a baffle located in the interior region between the first and second end walls, the chamber is defined between the first end wall and the baffle, and the static tuning volume is located between the second end wall and the baffle.

31. (New) The exhaust processor of claim 30, wherein the first tube and the tuning tube extend from the baffle to the second end wall.